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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Seung Jun Han

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EXAMINER

HAN, JASON

ART UNIT

PAPER NUMBER

2875

MAIL DATE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/670,787	Applicant(s) HAN ET AL.	
	Examiner JASON M. HAN	Art Unit 2875	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 February 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☒ Claim(s) 1 and 5 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to Claims 1-7 have been considered but are moot in view of the new ground(s) of rejection.
2. Overall, in response to Applicant's arguments, the prior art to Duijneveldt remains commensurate to the scope of the claims as stated by the Applicant within the context of the claim language and as broadly interpreted by the Examiner, which is elucidated and expounded upon below [MPEP 2111].

In response to Applicant's argument [Page 6], "In Duijneveldt (FIG. 1A), power sources 8 and 9 are not supplied to both end portions (a, b) of each lamp", Duijneveldt teaches, "In an alternative embodiment of FIG. 1, the lamps may also be connected pairwise (and alternatively) to a power source. In this case, four power sources are necessary" [Column 6, Lines 45-47]. Thus, it remains clear that power sources may be arranged at each "a" portion of the lamps such that a high voltage may be supplied. In addition, it remains clear that the "b" portions of the lamps would inherently be directly supplied with a low voltage of an AC voltage, which is corroborated by Duijneveldt [Column 6, Line 41].

Claim Objections

3. Claims 1 and 5 are objected to because of the following informalities: "at the first ends of the lamps" should read as "at first ends of the lamps". Appropriate correction is required.

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4. Claims 1 and 5 are objected to because of the following informalities: "at the second ends of the lamps" should read as "at second ends of the lamps". Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. With regard to Independent Claims 1 and 5, the Applicant twice recites "the low voltage electrode directly supplied with the low voltage and the high voltage electrode directly supplied with the high voltage" at both the first side and second side of the lamp housings. Applicant should further elaborate and claim multiple low voltage electrodes and high voltage electrodes (e.g., first and second plurality of low voltage electrodes and first and second plurality of high voltage electrodes) to avoid uncertainty.

The following claims have been rejected in light of the specification, but rendered the broadest interpretation as stated by the Applicant within the context of the body of the claim language and as construed by the Examiner [MPEP 2111].

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Van Duijneveldt (U.S. Patent 5,975,722 A).

10. With regards to Claim 1, Van Duijneveldt discloses a backlight unit including:

- A lamp housing [Figures 1A-B: (6)] having a first side and a second side opposite the first side; and
- A plurality of lamps [Figures 1A-B: (4ⁿ, 5ⁿ)] respectively having a low voltage electrode [Figure 1A: (b)] and a high voltage electrode [Figure 1A: (a)] each at opposite ends of the lamp, the lamps arranged substantially parallel in the lamp housing, a low voltage of an AC voltage directly supplied to the low voltage electrode of the lamp and a high voltage of the AC voltage directly supplied to the high voltage electrode of the lamp, wherein the low voltage electrode directly supplied with the low voltage and the high voltage electrode directly supplied with the high voltage at first ends of the lamps are alternately disposed at the first side of the lamp housing, and the low voltage electrode directly supplied with the low voltage and the high voltage electrode directly supplied with the high voltage at second ends of the lamps are alternately

disposed at the second side of the lamp housing [Figures 1A-B; Column 6, Lines 41 and 45-47].

11. With regards to Claim 2, Van Duijneveldt discloses the backlight unit further incorporating a diffusion plate [Figures 1A-B, 5: (7, 47)] located on the lamp housing [Figures 1A-B: (6, 46)]; and an optical sheet [Figure 5: (53, 51)] located on the diffusion plate.

12. With regards to Claim 3, Van Duijneveldt discloses the low voltage electrode [Figure 1A: (b)] and the high voltage electrode [Figure 1A: (a)] are respectively arranged in zigzag fashion.

13. With regards to Claim 4, Van Duijneveldt discloses the low voltage [Figure 1A: (b)] and high voltage [Figures 1A: (a)] electrodes of the lamps being alternately arranged by a number greater than 2 at the first side of the lamp housing.

14. Claims 5-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Van Duijneveldt (U.S. Patent 5,975,722 A).

15. With regards to Claim 5, Van Duijneveldt discloses a liquid crystal display including:

- A back light unit including:
 - = A lamp housing [Figures 1A-B, 5: (6, 46)] having a first side and a second side opposite the first side;
 - = A plurality of lamps [Figures 1A-B, 5: (4ⁿ, 5ⁿ, 44ⁿ, 45ⁿ)] respectively having a low voltage electrode [Figures 1A-B: (b)] and a high voltage electrode [Figures 1A-B: (a)] each at opposite ends of the lamp and

arranged substantially parallel in the lamp housing, a low voltage of an AC voltage directly supplied to the low voltage electrode of the lamp and a high voltage of the AC voltage directly supplied to the high voltage electrode of the lamp, wherein the low voltage electrode directly supplied with the low voltage and the high voltage electrode directly supplied with the high voltage at first ends of the lamps are alternately disposed at the first side of the lamp housing, and the low voltage electrode directly supplied with the low voltage and the high voltage electrode directly supplied with the high voltage at the second ends of the lamps are alternately disposed at the second side of the lamp housing [Figures 1A-B; Column 6, Lines 45-47];

= A diffusion plate [Figures 1A-B, 5: (7, 47)] located on the lamp housing; and

= An optical sheet [Figure 5: (53)] located on the diffusion plate; and

- A liquid crystal panel [Figure 5: (51)] disposed on the back light unit and having a plurality of liquid crystal cells arranged in matrix form.

16. With regards to Claim 6, Van Duijneveldt discloses the low voltage electrode [Figure 1A: (b)] and the high voltage electrode [Figure 1A: (a)] are respectively arranged in zigzag fashion.

17. With regards to Claim 7, Van Duijneveldt discloses the low voltage [Figure 1A: (b)] and high voltage [Figures 1A: (a)] electrodes of the lamps being alternately arranged by a number greater than 2 at the first side of the lamp housing.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON M. HAN whose telephone number is (571)272-2207. The examiner can normally be reached on 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on (571) 272-2378. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jason M Han
Examiner
Art Unit 2875

JMH
June 2, 2008

/Sandra L. O'Shea/
Supervisory Patent Examiner, Art Unit 2875